After the Crash

Would a sudden collapse on Wall Street spark a global Great Depression, 21st-century style? Maybe. However, the biggest dangers lie not in shrinking economies or international financial panics, but in the worldwide spread of misguided policies that would follow a stock market debacle. By Martin Wolf

entral America, South Asia, Cuba, the Korean demilitarized zone—for decades, these were considered among the world's danger zones, the hot spots that could spark widespread international instability. But today, the epicenter of potential global turmoil has shifted—to Wall Street. The soaring U.S. stock market is the new leading indicator for global progress and stability; a sharp decline in stock prices would have serious repercussions across the globe. History suggests that such a tumble is likely. If the Wall Street crash of 1929 was the harbinger of the Great Depression and World War II, what havoc would a modern-day crash wreak?

ANATOMY OF A BOOM

Since World War I, investors in U.S. stocks have enjoyed three big bull markets—the first in the 1920s, the second in the 1950s and 1960s, and the third (and current one) starting in the 1980s. The earlier booms ended in tears: Just as the 1920s were followed by the Great Depression, the 1960s preceded oil shocks and high inflation.

Today's market run-up looms largest of all. Since 1982, investors have enjoyed returns nearly double the long-run norm. In August 1982, the stock market was valued at 7 times the aggregate earnings of all the companies it contained. This ratio soared to a record 36 times in July 1999 and stood at about 30 in July 2000. Such lofty valuations—the highest since record keeping began in the 1880s—are more than twice the long-run

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average. These huge increases translated into growing investor wealth. Between January 1994 and June 2000 alone, the aggregate worth of the U.S. stock market rose by more than \$10 trillion; in today's prices, more than one year's gross domestic product (GDP) [see chart on page 48]. This extraordinary track record was mirrored by the sterling performance of the U.S. economy, currently in the midst of a 114-month economic expansion—the longest in the country's history.

The United States is not the first country that has experienced a substantial rise in the value of real assets during the past two decades. Among high-income countries, major increases in asset prices occurred in Japan, the United Kingdom, and a number of Scandinavian countries. In all these cases, the booms ended in busts. Japan in particular continues to suffer through a decade-long economic malaise despite government attempts to stimulate consumption and growth.

Although increases in real estate values played a larger role in these countries than they have in the United States, the overall macroeconomic symptoms of an asset-price bubble tend to be similar. When stock values soar, investors feel richer and thus less compelled to save. At the same time, higher stock valuations create incentives for corporations to expand their investments. This combination of lower savings and greater investment encourages the private sector to increase its external indebtedness, because corporations will depend more on foreign capital to pay for new investments. As international borrowing increases, the country's current account—which measures the trade balance and net interest payments-becomes negative. At the same time, the government, flush with tax revenues stemming from greater economic activity, enjoys a budget surplus. This scenario describes precisely how events have unfolded in the United States. Between 1992 and 1999, the private sector's financial balance moved from a surplus equivalent to 5 percent of GDP to a deficit of 4 percent—the largest recorded shortfall in U.S. history. The government's accounts traced the opposite course, shifting from a deficit of 4.7 percent of GDP in 1992 to a surplus of more than 1 percent last year. Yet even this was not enough to meet the private sector's financing needs. As the United States drew on foreign money, the U.S. current-account deficit rose from 1 percent of GDP in 1992 to close to 4 percent in 1999.

Against this macroeconomic backdrop, the vaunted U.S. economy appears severely strained: a stock market only slightly off its record valuations of 1999, a bloated current-account deficit, and high private sector debt. Moreover, many analysts believe that recent economic growth has been too strong and unemployment too low for inflationary pressures to remain in check.

There are reasons to believe that such unsustainable trends will end with a bang, not a whimper.

POP GOES THE BUBBLE

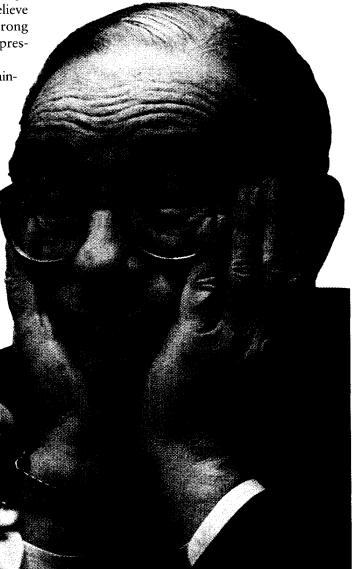
Of course, there is no way of knowing what specific event might trigger a major correction on Wall Street. But we do know that soaring asset markets have, in the past, tumbled far and fast. Disappointment over low prospective returns, perhaps triggered by unexpectedly bad corporate earnings, could lead to a strong negative adjustment in U.S. equity markets.

Dropping asset prices would trigger a downward economic spiral. The incentive to invest would diminish; the value of assets

Ultimately, neither aggressive fiscal expansion nor loose monetary policy would prevent the effects of a Wall Street crash from spilling across U.S. borders to the rest of the world.

held by families and individuals would decline; debtors would have more difficulty meeting their payments, thus contributing to deteriorating bank portfolios; funding of start-ups would disappear; individuals would save more and consume less; unemployment would spike; and profits would shrink, causing asset values to slump even further. Indeed, history suggests that stock prices overshoot downward, just as they often do upward.

In other high-income countries that suffered assetprice collapses, the medium-term effects included increased savings (in other words, sharp declines in consumption) and plummeting levels of investment. If the typical magnitude of these effects were replicated in the United States today—certainly a plausible scenario the likely outcomes would range from the merely



pessimistic to the outright catastrophic. Some analysts contend that the economy would stagnate for more than five years and the unemployment rate would exceed 10 percent. Alternatively, economic activity would contract for two or three years before recovering. Either way, a U.S. recession would ensue.

Optimistic observers counter that U.S. economic policymakers would not sit idly by as their country slipped

into recession. On the fiscal side, the formula appears simple: Keynesian pump priming. With starry-eyed U.S. government forecasters predicting budget surpluses as far as their models can compute, it might seem reasonable to reinvigorate a struggling economy by increasing public spending or lowering taxes. In theory, this logic is persuasive. But Japanese and British experiences show that once consumers and corpora-

tions develop a pessimistic outlook as a result of a reduction in their perceived wealth, the public sector may be forced into deep deficits yet still be unable to prevent a recession or prolonged stagnation.

In the United Kingdom, for instance, the government's fiscal balance collapsed from a surplus of just under 1 percent of GDP in 1989 to a deficit of nearly 8 percent of GDP four years later. Even so, the economy still contracted sharply. Similarly, Japan's general government balance moved from a surplus of just under 3 percent of GDP in 1991 to a deficit of more than 7 percent last year. Yet, Japan has suffered a decade of stagnation, as well as a recession in 1998. Finally, Sweden's case is particularly sobering. The country's fiscal balance moved from a surplus of 5 percent of GDP in 1989 to a deficit of 13 percent of GDP four years later—an astounding swing of 18 percentage points. Yet the economy shrank from 1991 to 1993.

Pumping government money into the economy would not be, then, the simple solution. Moreover, it is implausible that U.S. fiscal policy would be deployed aggressively enough to offset a major private sector retrenchment. The decline in tax revenues and increase in government spending that automatically follow recessions would cushion the blow somewhat, though at the dear political price of a return to large fiscal deficits. Even so, this would not prevent a serious economic slowdown.

Is monetary policy a more viable alternative? If a recession looms, the U.S. Federal Reserve could cut interest rates, thus reducing borrowing costs for consumers and corporations and encouraging new spending and investment [see sidebar on opposite page].

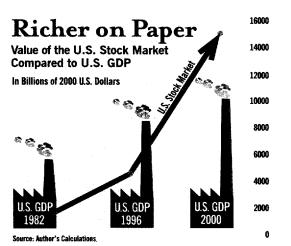
Again, such a response is effective in theory but flawed in practice. In the context of a stock market collapse, individuals would want to rebuild their wealth,

not take on more debt. Meanwhile, corporations would be unwilling to invest because of the decline in equity values, slowing of economic growth, and subsequent weakness of capitalists' "animal spirits." Japan's experience proves how real interest rates as low as zero can fail to improve a depressed economic climate.

Moreover, Federal Reserve policymakers might be wary of easing

monetary policy for fear of contributing to higher inflation. Although the United States is a relatively closed economy, it is much more open than it used to be: The ratio of trade (exports plus imports) to GDP jumped from 13 percent in 1970 to more than 30 percent in the late 1990s. A collapse in the value of the dollar versus other currencies could trigger a spike in inflation, because imports would suddenly become more expensive. A dollar collapse is likely, given how dependent the U.S. economy is on the constant inflow of funds from abroad. The Federal Reserve would then confront a central banker's nightmare: a recession, a weak dollar, and rising inflation all at once.

Ultimately, neither aggressive fiscal expansion nor loose monetary policy would suffice to stem the recessionary impact of a Wall Street collapse—nor would such measures prevent the effects of a crash from spilling across U.S. borders to the rest of the world.



MELTDOWN OR SLOWDOWN?

The notion that the strong U.S. economy "saved" the rest of the world during the global financial turmoil of the late 1990s has become increasingly fashionable. Even U.S. Treasury Secretary Lawrence Summers recently referred to the United States as "the main engine of global growth." However, this proposition is not strictly true. Since the United States accounts for

A Crash Course for Central Bankers

by Ben S. Bernanke

collapse in U.S. stock prices certainly would cause a lot of white knuckles on Wall Street. But what effect would it have on the broader U.S. economy? If Wall Street crashes, does Main Street follow? Not necessarily. Consider three famous episodes: the U.S. stock market crash of 1929, Japan's crash of 1990-1991, and the U.S. crash of 1987.

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n is for The 1929 U.S. crash and the sharp decline in Japanese stock prices were both followed by decade-long economic slumps in each country. (The Japanese depression, despite much whistling in the dark by the country's policymakers, still lingers.) By contrast, the macroeconomic fallout from the 1987 tumble on Wall Street was minimal. Why the difference?

A closer look reveals that the economic repercussions of a stock market crash depend less on the severity of the crash itself than on the response of economic policymakers, particularly central bankers. After the 1929 crash, the Federal Reserve mistakenly focused its policies on preserving the gold value of the dollar rather than on stabilizing the domestic economy. By raising interest rates to protect the dollar, policymakers contributed to

severe price deflation. The U.S. central bank only compounded its mistake by failing to counter the collapse of the country's banking system in the early 1930s; bank failures both intensified the monetary squeeze (since bank deposits were liquidated) and sparked a credit crunch that hurt consumers and small firms in particular. Without these policy blunders by the Federal Reserve, there is little reason to believe that the 1929 crash would have been followed by more than a moderate dip in U.S. economic activity. The downturn following the

soaring unemployment and

collapse of Japan's so-called bubble economy of the 1980s was not as severe as the Great Depression. However, in some crucial aspects, Japan in the 1990s was a slow-motion replay of the U.S. experience 60 years earlier. After effectively precipitating the crash in stock and real estate prices through sharp increases in interest rates (in much the same way that the Fed triggered the crash of 1929), the Bank of Japan seemed in no hurry to ease monetary policy and did not cut rates significantly until 1994. As a result, prices in Japan have fallen about 1 percent annually since 1992. And much like U.S. officials during the 1930s, Japanese policymakers were unconscionably slow in tackling the severe banking crisis that impaired the economy's ability to function normally.

Central bankers got it right in the United States in 1987 when they avoided deflationary pressures as well as serious trouble in the banking system. In the days immediately following the October 19th crash, Federal Reserve Chairman Alan Greenspan-in office a mere two months—focused his efforts on maintaining financial stability. For instance, he persuaded banks to extend credit to struggling brokerage houses, thus ensuring that the stock exchanges and futures markets would continue operating normally. (U.S. banks, which unlike their Japanese counterparts do not own stock, were never in any serious danger from the crash.) Subsequently, the Fed's attention shifted from financial to macroeconomic stability, with the central bank cutting interest rates to offset any deflationary effects of declining stock prices. Reassured by policymakers' determination to protect the economy, the markets calmed and economic growth resumed with barely a blip.

There's no denying that a collapse in stock prices today would pose serious macroeconomic challenges for the United States. Consumer spending would slow, and the U.S. economy would become less of a magnet for foreign investors. Economic growth, which in any case has recently been at unsustainable levels, would decline somewhat. History proves, however, that a smart central bank can protect the economy and the financial sector from the nastier side effects of a stock market collapse.

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A steep decline in the U.S. dollar would pose serious challenges to Japan. A crisis might even compel Japanese authorities to introduce badly needed structural reforms to the economy.

slightly more than a quarter of global economic activity, it certainly exerts a powerful influence. But positive correlations between U.S. business cycles and those of other countries have not, historically, been that high. Among leading industrial countries, only the United Kingdom and Canada have displayed business cycles that move together with those of the United States. Indeed, if the U.S. economy helped prevent a global recession following the financial crises of 1997 and 1998, it was precisely because its business cycle was not closely synchronized with many other economies. Otherwise the United States would have fallen into a recession along with the crisis-ridden regions.

Nevertheless, a U.S. stock market crash and subsequent domestic recession would have a major impact on the rest of the world. The effects would flow through four channels: trade, capital flows and exchange rates, commodity prices, and financial contagion.

International Trade | In a deep recession, U.S. consumers' appetite for goods and services would diminish and imports would decline. The net deficit in trade in goods and services might even disappear



A collapse on Wall Street would trigger sharp declines in other markets. The impact on the British market would be deep and long lasting.

over several years. Essentially, the United States would export unemployment by reducing its demand for what the rest of the world has to sell.

If this adjustment were to hit all trading partners proportionally, the direct effect would be biggest on Canada, where economic activity could decline by up to 8 percent over several years as U.S. trade patterns adjusted. The impact on Mexico would be almost as large, with a potential reduction in GDP of about 6 percent. This is hardly surprising, since exports to the United States accounted for 32 and 23 percent of the Canadian and Mexican economies, respectively, in 1999. The Western Hemisphere and developing countries in Asia would see a reduction in GDP of less than 2 percent, although there would be larger effects on the small, open economies of Hong Kong, Singapore, and Taiwan. Central and Eastern European countries would not be too hard hit by the direct trade effect since they conduct most of their commerce with the European Union. The trade impact on Japan, the United Kingdom, and the euro zone would be small—a contraction of about 0.6 percent of their respective GDPs. The 11 Western European nations comprising the euro zone export only 2.2 percent of their GDP to the United States; the United Kingdom, 2.7 percent; and Japan, only 3 percent. Provided the U.S. trade adjustment occurred over several years, most countries would avoid recessions caused by weaker U.S. demand for their goods and services.

A Weaker Dollar | If foreign capital stopped flowing into the United States in response to a stock market crash, the dollar could lose up to one third of its value against the yen and the euro. Most of the emerging economies of Asia and Latin America would happily let their currencies weaken along with the dollar, thus making their exports cheaper and more competitive. However, a sustained decline in the U.S. dollar would create a serious challenge for the Japanese economy. The yen could jump to ¥70 to the dollar (appreciating from its July 2000 value of ¥107 to the dollar), with damaging consequences for the profits of Japanese companiesthey would be forced to cut the prices of their products in export markets. Such a crisis could force the Bank of Japan to intervene in exchange rate markets in support of the yen; conceivably, this outcome might even compel Japanese authorities to introduce badly needed structural reforms to the economy. And although the euro zone would also be squeezed by a falling dollar, it would be in a vastly more

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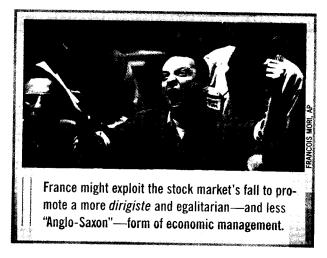
comfortable position than Japan. If the European Central Bank reacted with a loose monetary policy, it could effectively shield the euro-zone economy and help stabilize the rest of the world.

Falling Oil Prices | Global oil markets are finely balanced; prices tend to decline rapidly in response to falling consumption. So a recession—or even a mere slowdown-in the United States would dampen U.S. demand for oil and depress international oil prices. (Imported oil accounted for more than half of U.S. petroleum consumption in 1999.) While weaker oil prices would reduce inflationary pressures worldwide, thus making it easier for the Federal Reserve and other central banks to respond to the slowdown, they would damage the economic prospects of petroleum-exporting nations. Particularly important among these is Russia, where, according to some analysts, oil accounts for at least 15 percent of government revenues and the oil and gas sector represents 20 to 30 percent of the domestic economy.

Financial Contagion | The last and most important channel is contagion through the world's equity markets. With the exception of the Japanese stock market, all other bourses tend to follow Wall Street. A collapse there would almost certainly trigger sharp declines in other markets, particularly those that have marched in approximate step with U.S. equities during the 1990s. The impact on the Canadian and British markets would be particularly deep and long lasting. However, the repercussions elsewhere should be more modest and relatively short-lived. For instance, in 1999 the value of stock markets in the euro zone represented a smaller proportion of the regional economy than the corresponding markets in the United States or Great Britain. Since most euro-zone stocks are held by corporations, not individuals, even a steep decline in European stock markets would have a much smaller impact on spending than a Wall Street correction would have on U.S. consumers. The same would hold for Japan. And in most emerging economies, the stock markets represent a much smaller proportion of GDP than in the United States—so even a contagion-induced market correction in developing regions would not necessarily spark severe macroeconomic downturns.

THE CONTAGION OF BAD POLICY

Human beings are subject to "irrational exuberance," and stock markets do, accordingly, soar and crash. The United States is hardly immune to this fact. But



after two or three years of economic decline or a longer period of stagnation, the U.S. economy would eventually recover from the effects of a Wall Street crash. It would certainly not suffer from the permanently excessive savings that have proved so debilitating to Japan. Moreover, a U.S. stock correction would not start a real estate-cum-banking crisis along Japanese lines. As for the rest of the world, there would be a slowdown for a year or two, but not necessarily a recession, except in a few particularly vulnerable countries, such as Canada and Mexico.

However, while the direct economic effects of a U.S. crash need not be excessively damaging, the wider political and policy repercussions that ensue could prove extremely harmful.

In the United States, disappointment would set in as the "new economy" proved surprisingly consistent with old-fashioned recessions. Investors would become bitter and stock options worthless. Start-ups would cease. Unemployment would surge. Everyone would stop talking about the privatization of Social Security, even though the plunging market would suddenly make it an excellent idea. Alan Greenspan's

A U.S. recession would depress global oil prices and undermine economic prospects for Russia, where the oil and gas sector represents 20 to 30 percent of the domestic economy.



reputation as an economic wizard would suffer enormously. The mantra that central banks should only worry about consumer-price inflation would be abandoned. Locking stable doors after the horses have bolted, economists would finally agree that central bankers should include asset prices in their deliberations on monetary policy. And the next U.S. president could easily prove a one-term wonder.

Even more worrisome, however, is the possibility that the United States might abandon its confident promulgation of an open, market-based global economy. Since the crash would come so soon after the emerging markets' financial crises of the mid- and late 1990s, governments in Asia and Latin America would encounter strong domestic pressure to become more inward looking; trade protectionism could easily

resurface. Another intriguing possibility is that the European Union, led by France, would exploit the stock market's fall from grace to promote a more dirigiste and egalitarian—and less "Anglo-Saxon"—approach to economic management. Over time, these policy changes could prove much more damaging than the immediate economic or financial effects of a major downturn in U.S. stock values.

Yet, it is possible to imagine at least one favorable development resulting from a crash on Wall Street: Investors, perhaps, would finally realize that riches do not flow unceasingly from the stock market's ever open spigot. The daily obsession with equity values would disappear and the stock market would, once again, be the boring place it ought to be. And that would be no bad thing.

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Want to Know More?

Amid the reams of writings on the U.S. stock market boom, two sobering tracts stand out. First, Robert J. Shiller's *Irrational Exuberance* (Princeton: Princeton University Press, 2000) examines several factors—including demographics and mass psychology—contributing to rising equity prices. Second, Andrew Smithers and Stephen Wright argue that the U.S. stock market could suffer a severe collapse in *Valuing Wall Street: Protecting Wealth in Turbulent Markets* (New York: McGraw-Hill, 2000). James K. Glassman and Kevin A. Hassett offer a bullish assessment of the prospects for U.S. equities in *Dow 36,000: The New Strategy for Profiting from the Coming Rise in the Stock Market* (New York: Times Business, 1999). For a classic analysis of historical returns in the U.S. equity market, see Jeremy Siegel's *Stocks for the Long Run: The Definitive Guide to Financial Market Returns and Long-Term Investment Strategies*, 2nd ed. (New York: McGraw-Hill, 1998).

The relationship between monetary policy and stock values remains controversial. For an excellent treatment of this issue, see *Asset Prices and Central Bank Policy* (London: Centre for Economic Policy Research, 2000) by Stephen G. Cecchetti, Hans Genberg, John Lipsky, and Sushil Wadhwani. Federal Reserve Chairman Alan Greenspan also addresses this issue in a number of speeches, particularly "Technology and the Economy," (New York: Economic Club of New York, January 13, 2000) available from the Board of Governors of the Federal Reserve. For an assessment of the international effects of a U.S. economic slump, see Brian Reading's "After the Party's Over—Part Two" (Monthly International Review, June 2000), available from the London-based Lombard Street Research, Ltd. Bill Martin analyzes the potential consequences of a U.S. market crash in "America's New Era Revisited" (April 2000), available from the British asset management company Phillips & Drew.

The best popular account of the 1929 stock market crash remains John Kenneth Galbraith's *The Great Crash* (Boston: Houghton Mifflin, 1997), which contains many wonderful contemporary parallels. So does Charles MacKay's *Extraordinary Popular Delusions and the Madness of Crowds* (New York: Crown Trade Paperbacks, 1995). Readers interested in the global ramifications of the 1929 financial turmoil should read Ben S. Bernanke's *Essays on the Great Depression* (Princeton: Princeton University Press, 2000).

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